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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,126	06/18/2007	Marcus Meichsner	FI-82PCT	4053

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EXAMINER	
WALTERS JR, ROBERT S	
ART UNIT	PAPER NUMBER
1711	
MAIL DATE	DELIVERY MODE
09/28/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,126	MEICHSNER ET AL.	
	Examiner	Art Unit	
	ROBERT S. WALTERS JR	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7 and 10-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7 and 10-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application

Claims 1, 2, 4-7 and 10-14 are pending and presented for examination.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/5/2010 has been entered.

Response to Arguments

Applicant's arguments filed 5/5/2010 have been fully considered but they are not persuasive. The applicant first argues that Hatton fails to teach the use of their compositions for the production of wire coils. However, Hatton does teach the use of the compositions for insulation compounds for the electronic industry and as coatings, see Hatton at page 13, lines 19-22. Therefore, the examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to look to Hatton's insulating compounds to be utilized in Westervelt's process which is to provide insulation to electrical windings (see Westervelt at abstract).

Further, the applicant argues that Westervelt teaches hardening the resins with UV light followed by thermal hardening, and that these resins must therefore remain thermoplastic after UV hardening. The applicant contends that Hatton provides no teaching that their resins remain thermoplastic after UV exposure, and that there would be no suggestion that Hatton's resin could be used in Westervelt's process. First, it is not clear that Westervelt's resins must remain thermoplastic after UV hardening. Westervelt appears to teach that the outside layer of the resin is cured or partially cured by UV while the resin in the inner area that is not exposed to the UV light is not cured. Westervelt further teaches that the resin in the inner layer may be cured and the partially cured resin may be fully cured thermally (column 2, line 48-column 3, line 13). Therefore, the examiner contends that Westervelt does not necessarily teach that the resins remain thermoplastic after UV exposure, as the final cure is primarily to cure any resin that has not been exposed to UV. Furthermore, Hatton teaches that their resins may be cured by either heat or UV as noted in applicant's argument. Therefore, the examiner maintains that Hatton's resins could be used in Westervelt's process as both a UV and heat curable catalyst could be utilized, such that Hatton's resin could be initially cured with UV followed by a final thermal post-cure, as desired in Westervelt's process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 2, 4-7 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westervelt et al. (U.S. Pat. No. 4554730) in view of Hatton et al. (WO00/77066).

I. Regarding claims 1, 2, 4, 5 and 12-14, Westervelt teaches a method comprising coating electrical wire (abstract) with a UV-curable enamel, curing via UV irradiation after coating and also baking the enamel, and winding the wire to form a coil (column 2, lines 31-54, column 3, lines 8-13 and Figure 3).

Westervelt fails to teach the specifics of the UV-curable enamel. However, Hatton teaches the use of a UV-curable enamel containing an oxirane-based binder and a cationic photopolymerization crosslinking catalyst (see Example 15, page 17), cyracure uvi 6990 (which is a mixed arylsulfonium hexafluorophosphate salt of the form of claim 5). Hatton further teaches the use of reactive diluents such as low molecular weight epoxides (page 8, lines 38-40) in the composition. Hatton further teaches that the oxirane binder can be prepared from a cycloaliphatic oxirane as claimed (see formula at the bottom of page 2) and polyethylene glycol (page 5, lines 19-22). Finally, Hatton teaches that further additives may be added as needed (page 9, lines 2-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Westervelt's process by using Hatton's UV-curable enamel. One would have been motivated to make this modification as one could have substituted Hatton's UV-curable composition for the generic UV-curable composition disclosed by Westervelt. Furthermore, one could have made this substitution with a reasonable expectation of success (given that Hatton teaches utilizing the composition as insulation compounds for the electronic industry and as coatings, see Hatton at page 13, lines 19-22), and the predictable result of providing a wire coil having an insulating coating.

Westervelt in view of Hatton further fail to explicitly teach the weight % of each of the components. However, it would have been obvious to one of ordinary skill in the art at the time of the invention that the percentage of each component would affect the quality of a coating prepared from the composition, such as hardness, curing speed, as well as the ease of coating the composition. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has

been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

II. Regarding claims 6 and 7, Westervelt in view of Hatton teach all the limitations of claim 1, but fails to explicitly teach preparing component (a) using methyl-3,4-epoxycyclohexanecarboxylate. However, Hatton teaches the use of polyoxiranes having methyl-3,4-cyclohexanecarboxylate in the structure (see formula at the bottom of page 2) and reacting this with polyethylene glycol (see above) to produce the oxirane binder. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that this particular monoepoxide could simply be substituted for the diepoxide as taught by Hatton with a reasonable expectation of success (as it would be expected to react with the polyethylene glycol identically to produce an oxirane-based binder), and the predictable result of providing an oxirane-based binder for a UV-curable coating composition.

2. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westervelt in view of Hatton as applied to claim 1, and further in view of Yamamura et al. (U.S. Pat. No. 6127085).

Regarding claims 10 and 11, Westervelt in view of Hatton teach all the limitations of claim 1, but fails to teach the use of polyester polyols having the claimed molecular weights as chain transfer agents. However, Yamamura teaches a similar photo-curable epoxy resin

composition (abstract), which incorporates polyester polyols (column 9, lines 7-9) having a molecular weight of 160-1000 (column 9, lines 31-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Westervelt in view of Hatton's process by including the polyester polyols, as disclosed by Yamamura. One would have been motivated to make this modification as Yamamura teaches that the incorporation of these compounds into curable epoxy resin compositions provides shape stability and stability in properties, as well a part of the photo-curability of the resin (column 8, lines 56-61).

Conclusion

Claims 1, 2, 4-7 and 10-14 are pending.

Claims 1, 2, 4-7 and 10-14 are rejected.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Thursday, 9:00am to 7:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1711

/ROBERT S. WALTERS JR/
September 27, 2010
Examiner, Art Unit 1711